H.264 4/8/16 Channel DVR
Quick Start Guide

Products: BLK-DH200400DH, BLK-DH200800DH, BLK-DH201600DH

PLEASE READ THIS GUIDE BEFORE USING YOUR RECORDER, and always follow the instructions for safety and proper use. Save this guide for future reference.

BLK-D20xx00DH_RQ
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Specifications*

ITEM				BLK-DH200400DH	BLK-DH200800DH	BLK-DH201600DH
Video	Input	Channel		4 channel	8 channel	16 channel
		Input level		Composite, 1.0 Vp-p, 75 Ω		
		Signal format		NTSC		
		Video loss check		Yes		
	Output	VGA		1		
		HDMI		1, up to 1080p		
		BNC		1		
		Spot		1		
Audio	Input / output			4 channel line input / 1 channel line output		
	Audio CODEC			G.711 (ADPCM)		
Alarm	Sensor Input			4 channels (NC/NO selectable)		
	Alarm output			1 Alarm out by Sensor, Motion and Video Loss		
Record	Compression			H.264		
	Multi-operation			QUADPLEX (Playback/Record/Network/Backup)		
	Resolution		D1	120 fps	120 fps	120 fps
			Half D1	120 fps	240 fps	240 fps
			CIF	120 fps	240 fps	480 fps
	Recording quality grade			5 grades		
	Recording mode			Continuous / Schedule / Motion/ Sensor/ Manual		
	Motion detection			Motion detection setup by grid		
	Recording by channel			Yes		
	Pre & post recording			Yes, 10 sec. ~ 60 sec.		
Display	Frame rate (/sec)			30 fps/channel		
Playback	Multi-secoding			1, 4	1, 4, 8	1, 4, 8, 16
	Playback speed		Single channel	2x, 4x, 8x, 16x, 32x		
			Multiple channels	4 channels	4 channels	4 channels
	Search mode			Timeline, Event, Archive, Log		
Storage	HDD		Interface type	Serial ATA I		
			Capacity of 1 HDD	2TB		
			Internal HDD	1 each (2 each without DVD-RW)		
	E-SATA port			1		
	Backup		USB flash drive	Video and still image		
			USB external HDD	Video and still image		
			Network	Video and still image		
	Serial ATA I port for DVD-RW			1		
	USB port			1 front, 1 back		
User I/F	Menu display			GUI		
	Input method			Remote control, mouse, keyboard (USB) controller		
Serial port	Console			–		
	PTZ control			1 RS-485		
	Termination			Yes		
Network	Dynamic DNS			Yes (free DDNS)		
	Network interface			10/100BASE-T Ethernet (RJ-45)		
	Network streaming			CIF 120 fps / 100 fps		
Network Access	Web viewer (1:1)			Live, Search, Backup, PTZF Cam Control, Remote Setup		
	3G mobile viewer (1:1)			Live, search, PTZF		
	Single site monitoring system:			Live, Search, Backup, PTZF Cam Control, Remote Setup		
	Multi-sites monitoring system			Live, Search, Backup, PTZF Cam Control, Remote Setup		
Features	DLS (Day Light Saving) & NTP			Yes		
	Internal Beep			By Alarm, Motion, Video Loss, HDD error		
	Multi-Language			Yes (more than 13 languages)		
	SW upgrade			USB flash drive, network		

ITEM		BLK-DH200400DH	BLK-DH200800DH	BLK-DH201600DH
	NTP	Yes		
	Watermark			
Power		12 Vdc @ 5 A		
Operating temperature		41 °F ~ 104 °F (5 °C ~ 40 °C)		
Storage temperature		14 °F ~ 122 °F (-10 °C ~ 50 °C)		
Weight	Unit weight / gross weight	9.04 lb / 13.67 lb (4.1 kg / 6.2 kg)		
Dimension (*w* x *h* x *d*)		15.0" x 13.4" x 2.83" (380 mm x 340 mm x 72 mm)		

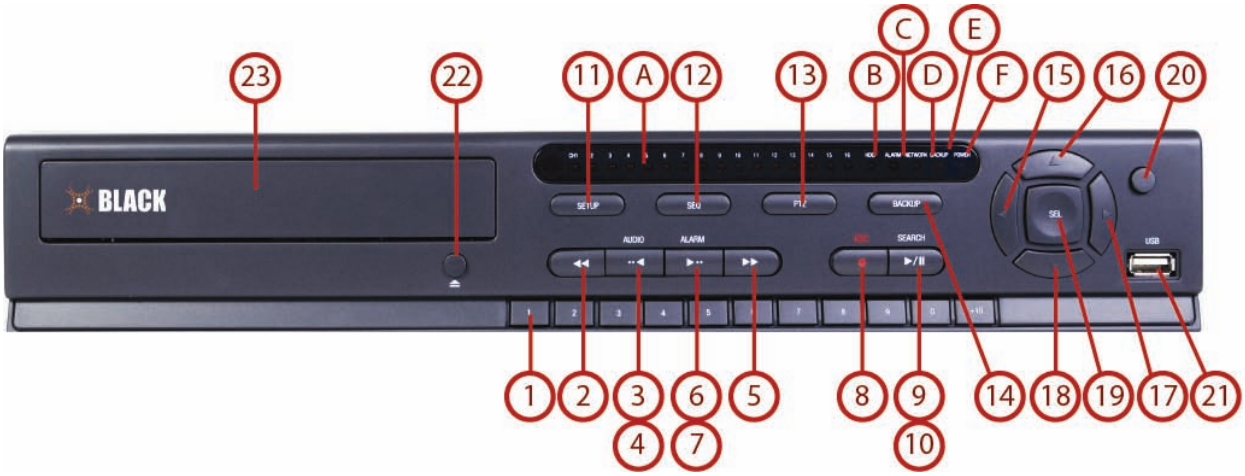
*Specifications and exterior design are subject to change without notice.

Product Components

The package contains the DVR unit and the components shown below.

DVR unit	
Software CD (with user manual) / Quick Start Guide	
HDD mounting screws (4)	
Adaptor (DC 12V 5A) and power cable	
Mouse	
Remote control and batteries	
HDD mounting brackets (1 set)	
HDD data power cable (1)	

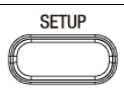
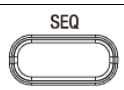
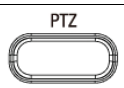
Front Panel



Front Panel LEDs

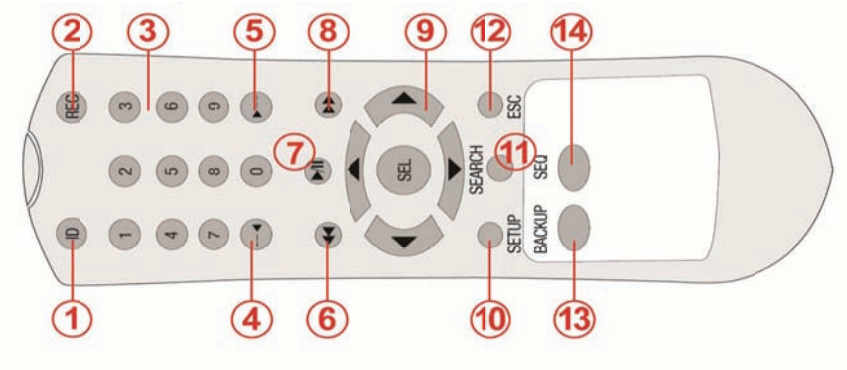
No.	Name	Description
A	**CH1~16**	Indicates that the channel is being recorded.
B	**HDD**	Indicates that the system is accessing the hard disk.
C	**ALARM**	Indicates that sensor(s) is/are triggered or motion is detected.
D	**NETWORK**	Indicates that a network client is connected
E	**BACKUP**	Indicates that a USB or DVD-RW device contains stored data
F	**POWER**	Indicating that the system is switched on.

Front Panel Buttons

No.	Name	Description
1		Channel keys. For channel 10, press the 0 key. For channel 11, press the +10 and 1 key. For channel 16, press the +10 and 6 key.
2		In playback mode, press to rewind the recording. Press again to increase the rewind speed.
3		Press to select an audio mode: MUTE – Mute all 4 channels. SINGLE - Highlighted channel only. MIX - Mix all 4 channels.
4		Jump/step backward. In playback mode, the playback position moves 60 seconds backward.
5		In playback mode, press to fast forward the recording. Press again to increase the fast forward speed.
6		Press to enable/disable ALARM operation.
7		Jump/step forward. In playback mode, the playback position moves 60 seconds forward.
8		Press to start or stop manual recording.
9		In live display mode, press to open the SEARCH menu.
10		In playback mode, press to play/pause the footage.
11		Press to open the SETUP menu.
12		Enable/disable the automatic sequence of display of channels in full screen, quad, 9-split display mode.
13		Press to control Pan/Tilt/Zoom operations.
14		Press to capture video in jpeg format in live or playback mode.
15	◀ **(LEFT)**	Press to move left or to change the values in Setup mode. It is also used as the number 4 when entering password.

No.	Name	Description
16	▲ (UP)	Press to move up the menu in Setup mode. It is also used as the number 1 when entering password.
17	▶ (RIGHT)	Press to move right or to change the values in Setup mode. It is also used as the number 2 when entering password.
18	▼ (DOWN)	Press to move down the menu in Setup mode. It is also used as the number 3 when entering password.
19		Press to select desired menu item or to store the setup value.
20		Press for temporary storage of the changed value or to return to the previous menu screen.
21	**USB port**	To save a snapshot image or video clip on a USB flash drive, or upgrade firmware with a USB flash drive, first connect the USB flash drive to the USB port.
22	**OPEN/CLOSE**	Press to open or close the disk tray.
23	**DVD drive**	To save video, insert a CD-R/DVD-R

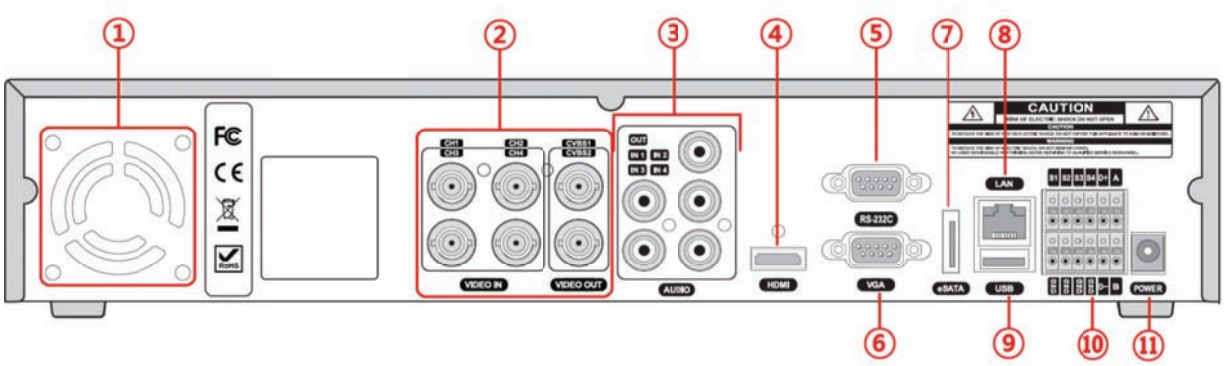
Remote Control



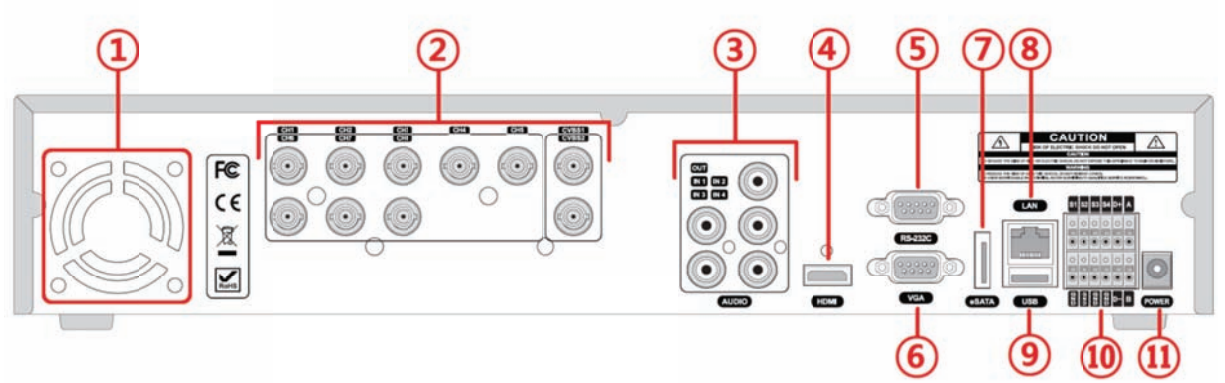
No.	Name	Description
1	**ID**	When a remote control ID number is set in the DVR, input the DVR ID number.
2	**REC**	To start and stop manual recording
3	**Number**	To select channel (1, 2, .. 16) or to enter DVR ID number.
4	**F/REW**	During playback - To move the playback position 60 seconds backward. During pause - To move the playback position 1 frame backward.
5	**F/ADV**	During playback - To move the playback position 60 seconds forward. During pause - To move the playback position 1 frame forward.
6	**REW**	To rewind the recording. Press again to increase the rewind speed.
7	**PLAY/PAUSE**	To play or to pause the footage in playback mode.
8	**FF**	To fast forward the recording. Press again to increase the fast forward speed.
9	**Control button**	Press to move the menu items or select channel.
10	**SETUP**	To open the SETUP menu.
11	**SEARCH**	To open the search menu.
12	**ESC**	During setting - To return to previous menu screen. During playback - To exit from playback System Lock – To lock a system when pressing ESC button for 5 seconds. System Unlock – To unlock a system when pressing ESC button for 5 seconds.
13	**BACKUP**	To start operations of backup in live or playback mode. (The same function button as CAPTURE on the front panel of DVR)
14	**SEQ**	To start auto sequencing of the screen in full screen mode. (Toggle)

Rear Panel

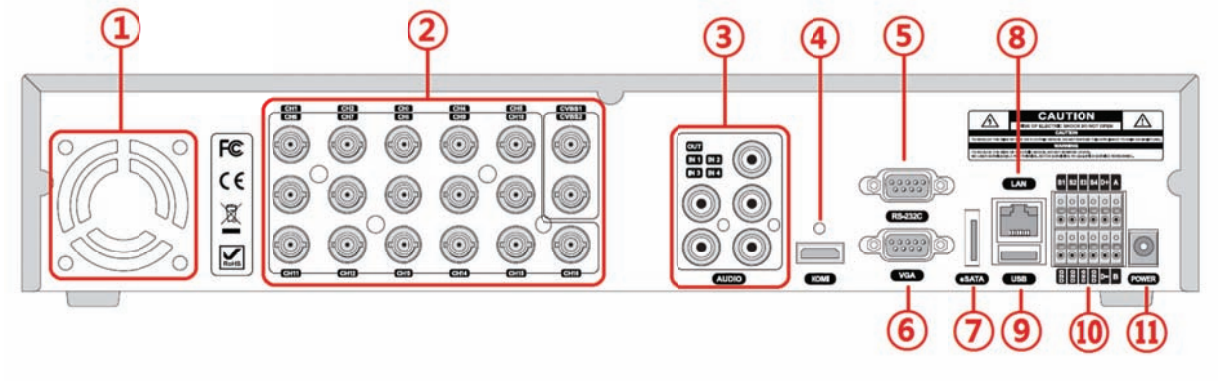
BLK-DH200400DH DVR



BLK-DH200800DH DVR



BLK-DH201600DH DVR



Rear Panel Connectors

No.	Item
1	Cooling fan
2	Video input & video output
3	Audio Input
4	HDMI video output
5	RS-232C terminal (For testing purposes)
6	VGA output
7	eSATA port
8	Network RS-45 Ethernet port
9	USB port
10	RS-485 PTZ, sensor input (4), alarm output (1). See user manual for more information.
11	DC12V Power Input

System Installation and Setup

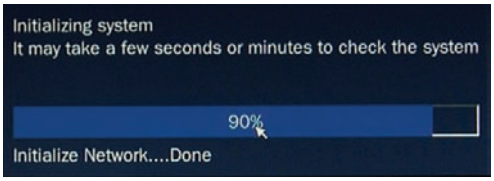
Follow the steps below to install and setup your system. For more information, refer to the user manual provided on the CD.

1. Plan your entire installation carefully, considering:
   - Position of the cameras to effectively cover your surveillance targets. Avoid locations and orientations where bright light might shine on or reflect onto the camera lens.
   - Security of the camera and the cabling to the DVR. Is it easy for an intruder to disable the cameras?
   - Location of the DVR. Is it in a secure location? Is the temperature and humidity within specifications?

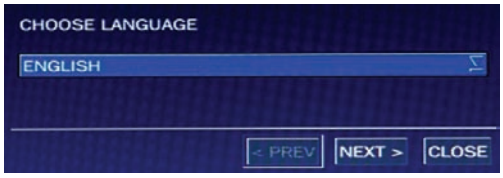
2. Install your cameras in accordance with the manufacturer's instructions.
3. Connect the video/audio and power extension cables to the cameras, then route them to the location of the DVR. Note that video extension cables connectors are usually different at each end; the end with the male power connector attaches to the camera drop cable, the end with the female power connector attaches to the power source and DVR.
4. Place the DVR on a clean, flat surface. Do not apply power to the DVR at this time.
   - Plug the USB mouse to the USB port on the DVR.
   - Connect a monitor to the VGA connector on the back of the DVR.

5. Connect the video extension cable from each camera to a video port on the back of your DVR.
   - If the camera location has a microphone, also attach the audio cable to an audio input connector on the back of the DVR.

6. Attach the power extension cable to the cameras to the recommended power source to power them on.
7. Power on the DVR.
   - Connect the power adapter to the DC12V power connector on the back of the DVR.
   - Power on the monitor.
   - Connect the power cable to the power adapter and to a standard 120 VAC outlet. When the DVR is powering on, an initialization window will appear.

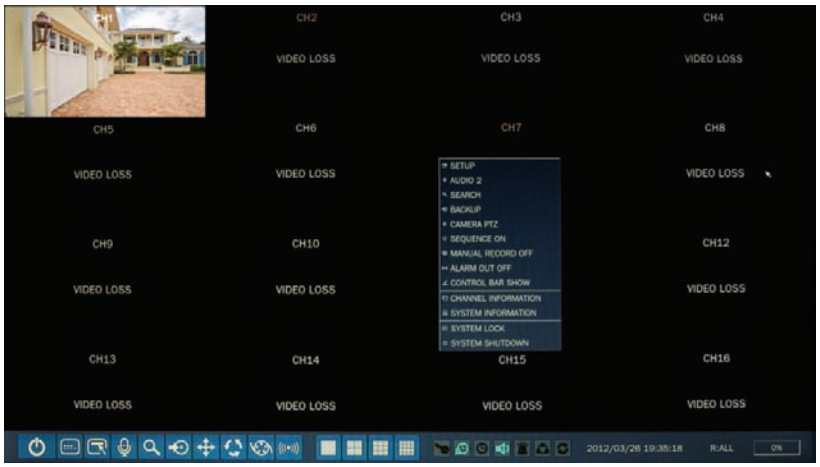


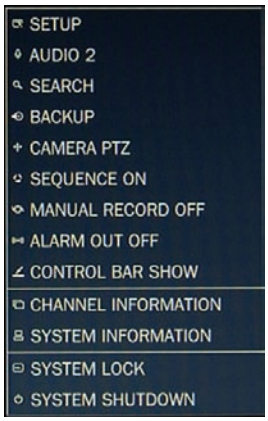
8. When the CHOOSE LANGUAGE window opens, use the mouse to open the dropdown list, select the language you prefer to use, then click Next. NOTE: You can also change the language setting later through the SETUP menus.



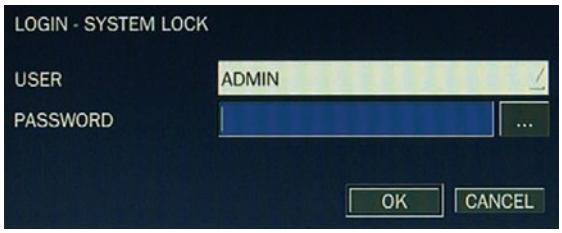
9. In the DAYLIGHT SAVING window, use the mouse to open the dropdown menus and select the DLS region, date and time. When the correct date and time is shown, click Next. NOTE: The date and time setup in the DVR is used to timestamp recorded video recordings. It is very important that this be set correctly if video recordings are used as evidence.

10. When the main screen opens, you should see a video image from each camera. Use this image to refine the manual settings of the camera. These settings include the camera direction, and may include focus, zoom, and other settings.
11. Right click the mouse anywhere on the DVR screen then click SETUP, or press the SETUP button on the front panel to access the SETUP menu.

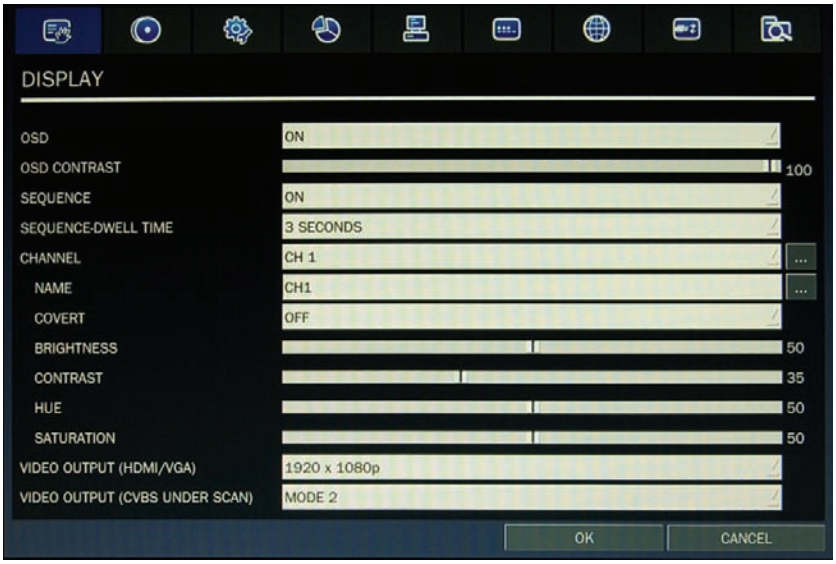




If a LOGIN window opens, click the virtual keyboard button (at the right of the password entry field) to open the keyboard window. Use the keyboard to click in the default **ADMIN** password, "**1111**", then click **OK**. In the LOGIN window, click **OK** again to open the DVR **SETUP** menus.



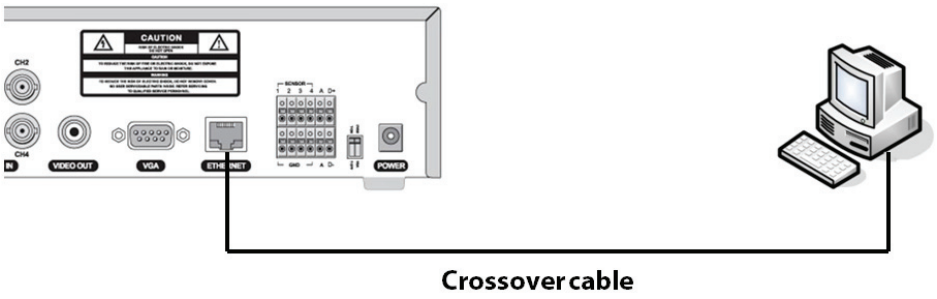
12. Configure the SETUP menus to customize the DVR settings for your system. Refer to the user manual included on the CD for more information about DVR Setup and system configuration settings.



Network Connections

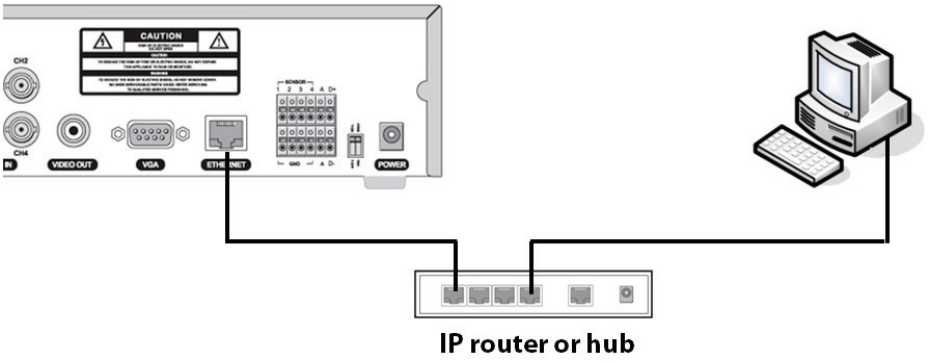
LAN Connection – Using a crossover cable without a switching hub

Connect to the system directly using a crossover type network cable.



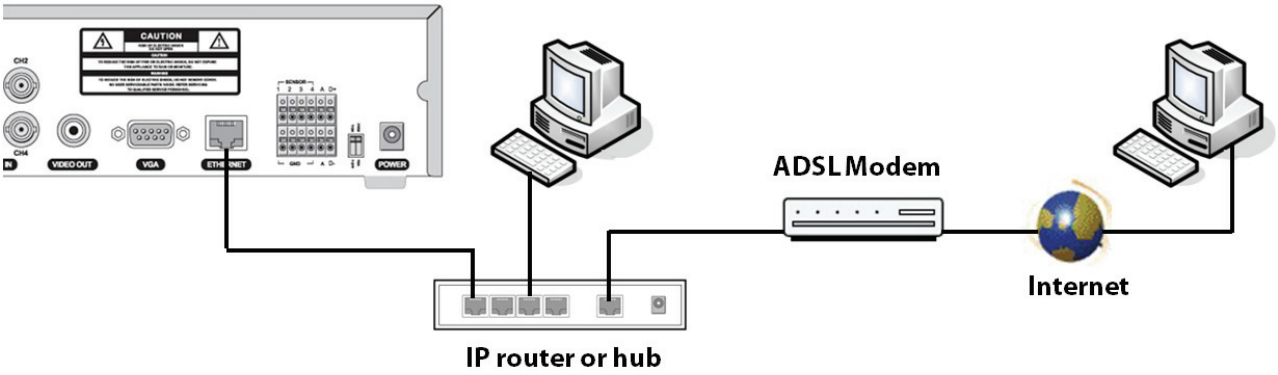
LAN Connection – Using a switching hub

Connect to the system using a hub (switching hub) and an Ethernet cable (10BASE-T/100BASE-TX CAT 5 LAN cable).



Internet (ADSL) Connection

Connect to the system using a router or ADSL modem and an Ethernet cable (10BASE-T/100BASE-TX CAT 5 LAN cable).



Smartphone Access

When your DVR is configured for access across the Internet, you can remotely monitor and control you video security using the free smartphone app Blackhawk. This app features:

- View from 1 to 16 cameras
- View images in portrait or landscape (single channel)
- Monitor multiple locations
- 3G/Wi-Fi compatible

For more information, and to download and install the app, go to:

- **Apple® iPhone®, iPod touch®,** or **iPad®:** http://itunes.apple.com/app/blackhawk-for-iphone/id422091119?
- **Android™ phones**: http://www.androidzoom.com/android_applications/tools/blackhawk_tlcv.html